

# TWELFTH ANNUAL REPORT

OF THE

# PHILADELPHIA, WILMINGTON AND BALTIMORE

# RAIL-ROAD COMPANY,

WITH THE

REPORT OF THE ENGINEER AND GENERAL SUPERINTENDENT,

MADE

JANUARY 14, 1850.

PHILADELPHIA:

JOHN C. CLARK, PRINTER, 68 DOCK STREET.

1850.

# TWELFTH ANNUAL REPORT,

#### 1849.

The Board of Directors of the Philadelphia, Wilmington and Baltimore Rail-road Company submit the following report of their proceedings for the year ending December 31, 1849, for the consideration of the Stockholders.

The receipts of the Company, during the year 1849, were from
Passengers, \$380,429 24
Freight and Express, 60,977 01
Mail, rents, &e., 40,207 33
\$481,613 58
And the expenses as follow:—
Running expenses, including maintenance
of way, \$203,486 84
Miscellaneous and general expenses, 25,679 02
Total expenses of Rail-road, per State-
ment (B), \$229,165 86
The interest on Loan, &c. less that accrued
on instalments on new stock, was 124,010 33
\$353,176 19
The receipts by the New Castle Line during the same period,
were, from Passengers, \$121,202 82
Freight, rents, mails, &c., 25,088 48
\$146,291 30
And the expenses, including tax on ca-
pital, \$111,816 70
And the interest on debts, 6,956 99
\$118,773 69

The total receipts during the year were and the total charges against the same, for all expenses and interest, \$471,949 88	\$627,904	88
Dividend, October 1, 1849, 116,602 00	588,551	88
Leaving net surplus, The surplus earnings of the three months, from 1st	\$39,353	00
October to 31st December, 1848, were	24,291	75
together, being the surplus of revenue on 31st December, 1849 (see Treasurer's statement),	\$63,644	75
There has also been expended in "Construction	n" and r	iew
work,	\$24,906	73
And for engines, cars and depôts,	41,184	13
Total Construction expenditure during the year, see Statement (C),	\$66,090	86

# Aggregate Receipts in 1848 and 1849.

Month.			1848.	1849.
January,	-	-	\$48,019 90	\$51,446 00
February,	-	-	46,702 24	$46,521 \ 03$
March,	-	-	$56,\!387$ $46$	75,148 25
April,	-	-	$46,\!890\ 35$	49,902 50
May,	-	-	52,603 55	47,958 12
June,	-	-	54,133 12	45,267 21
July,	-	-	61,581 68	42,413 50
August,	-	-	71,324 49	52,056 46
September,	-	-	61,984 72	58,577 91
October,	-	-	51,218 74	57,251 13
November,	-	-	40,819 82	51,061 03
December,	-	-	$46,\!526\ 15$	50,301 74
		Total,	\$638,192 22	\$627,904 88

Considering the various difficulties with which the business of the Company has had to contend during portions of the past season, the





S. M. COUPER, Treasurer. The foregoing Report and Statement, pursuant to a resolution of the Board of Directors, has been submitted to me, by Samuel

M. Couper, Esq., Treasurer and Superintendent, and, upon examination, is hereby approved.

New Castle, Del., January 16, 1850.

Directors.

JAMES ROGERS, C. H. FISHER,

KENSEY JOHNS, EDWARD C. DALE, Andrew C. Gray, J. I. COHEN, JR.

WM. H. SWIFT,

Benjamin W. Richards, M. BROOKE BUCKLEY,

JAMES LE FEVRE,

Secretary and Treasurer.

SAMUEL M. COUPER.

OFFICERS.

JAMES BOOTH, President.

President.

JAMES BOOTH.

HUGH M'ELDERRY. SAML. M'DONALD, THOMAS KELSO,

58,412 ½

During the past year, this rouse the con-

in very good order; the thorough relaying, in 1847, having been followed up by improvements in ditching and draining, as well as The rail-road from New Castle, Delaware, to Frenchtown, Maryland, 162 miles of single track, and about one mile of turnouts, is

close attention to a proper keeping up of the track. furnished the facilities to carry into effect a resolution of the Board of Directors, directing that a daily line should be run with one boat on the Chesapeake instead of two boats as heretofore Two turnouts were constructed last Spring, at convenient points, which enabled the passenger trains to pass on the road, and thus Some work remains to be done at the wharves and depots at New Castle and Frenchtown, but to no great extent.

and, when the slight repairs needed by the latter, and now in progress, shall be completed, will constitute the means of maintaining the usual line during 1850 The steamboats "George Washington," on the Chesapeake, and the "Robert Morris," on the Delaware, are in very good order,

and the "Ohio," on the Delaware, have been advertised for sale. In compliance with an order of the Board, the other boats belonging to the Company, viz. the "Constitution," on the Chesapeake, The Company now have in use on the rail-road two engines, "Delaware," 10 tons, single drivers, in good order; "Virginia," 9

performed well, and will need only usual repairs. They were both built by the New Castle Manufacturing Company. tons, single drivers, new in 1847. With the exception of the breaking of the crank axle of the "Delaware," in the month of September last, these engines have

# Office of the New Castle and Frenchtown Turnpike and R. R. Co.

New Castle, Del., January 10, 1850.

# Hon. James Booth,

Sir,-In conformity with a resolution of the Board of Directors, passed on the 8th inst., I submit the following statement of the President of the New Castle and Frenchtown Turnpike and Rail-road Company.

\$118,773 69														
	6,95699	1	1	ı	1	1	1	1	1	•	77	"	debts,	Interest on debts,
	4,500 00	1	١		†	ı	ı	1	ı	nber 31,	Tax on capital, 18 months, to December 31,	months	ital, 18	ax on cap
	3,674 95	1	ı	ı	1	ı	1	1	1	1	1	1	ı last,	March last,
		and	ebruary :	ats in F	my's bo	Compa	of the	repair	during	the route	Charter of steamboats for running the route during repair of the Company's boats in February and	oats for	steambo	harter of
	3,873 76	ı	ı	urs,	enger ca	eel pass	8 who	and class	wo seco	car, and t	Cost of one new 8 wheel passenger car, and two second class 8 wheel passenger cars,	wheel [	new 8	ost of one
	\$99,767 99		ı	ı	ı	ı	•	ı		ces, &c.,	boats, rent of wharves and offices, &c.,	wharve	rent of	boats,
		ım-	l and steam-	rail-road	ance of	mainten	s and	expense	unning	een for r	The charges against the same have been for running expenses and maintenance of rail-road and	st the sa	s agains	he charges
\$146,291 30														
	1,866 43	ı	٠	1	1	1	1	1	1	s, &c.,	way freights, &c.,		"	3
	11,752 88	•	1	1	ı	ı	1	1	1	business,	Cape May business,		"	"
	11,469 17	1	٠		ı	1	•	1	1		meals, &c.,		"	"
	\$121,202 82	1	•		1	1	1	1	1	•	ssengers,	from pa	s were	The receipts were from passengers,
,						٠	, 1849	iber 31si	Decen	ar ending	for the ye	mpany	this Co	business of this Company for the year ending December 31st, 1849.

During the past year, this route was run during two hundred and thirty-five days, of which there were double daily lines on eleven

"" "" "" " " " " " " " " " " " " " " "	" 1847. in good repair.	second class, purchased in 1849.	2 new and 2 much worn.	used for carrying horses, &c.	d order.	8 wood and lime cars, 4 wheel, inferior, very much worn.	0 dumping cars, 4 wheel, for lime, &c., purchased in 1848.
" " baggage cars, freight cars, wood cars, 4 wh wood and lime c dumping cars, 4					eel, in goo	ars, 4 whe	wheel, for
		99	4 baggage cars,	2 freight cars,	wood cars, 4 wh	wood and lime ca	dumping cars, 4

Cars owned by the Company, as follows:—

I annex statement, from the books of the Company, on 31st December, 1849.

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Statement of the New Castle

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•		

\$861,420 00 25,000 00

> 7,504 25 1,219 11 \$71,500 00

State of Delaware for Canal stock, Loan, at  $5\frac{1}{2}$  per cent., due 1st July,

Capital stock,

\*Bonds payable,

1853,

\$861,420 00 25,000 00

Canal stock received of State of Delaware,

Bonds and mortgages.

 $138,069\ 25\\23,836\ 41$ . \$699,514 34

> Steamboats, Real estate,

Rail-road,

Bills payable,

endent.





Directors think the proprietors have cause to be satisfied with the general result of the operations of the year.

1st. An extraordinary difficulty occurred at the Susquehanna during the past winter. The river was frozen in January, and remained obstructed byice six weeks, an event said to have been without parallel since the year 1800. This unusual occurrence proved highly detrimental to the interests of the Company; for not only were the expenses increased by the necessity of maintaining for a time two distinct lines—one by Chesapeake Bay, and the other between each extremity of the road and the Susquehanna river, for the mails and the way travel—but in addition, the discomfort and the supposed danger of erossing the river upon the ice, deterred numbers, it may be supposed, from making a journey to Washington to witness the inauguration.

2d. The second event was productive of more serious consequences, even; and to it, mainly, is to be attributed the diminished receipts of the Company as compared with the estimates of income which had been made during the preceding year, viz: the cholera. This scourge made its appearance in the South and West as early as March, and began to affect the business of the road in May. By examining the preceding table, and comparing the monthly receipts in 1848 and 1849, from June to September, inclusive, it will be perceived that within that period of four months the revenue of 1849 fell off upwards of 50,000 dollars.

These causes, combined, account sufficiently, in the opinion of the Board, for the falling off of the revenue of the past year.

The whole number of passengers transported both ways between Philadelphia and Baltimore in 1848 and 1849, was as follows:

	Through P	assen	gers.	
1848	—First class,			119,195
	Second class,		•	8,298
		То	tal,	127,493
1849	—First class,	٠		104,314
	Second class,		•	18,618
		TV.	vtol.	199 099

#### Way Passengers.

1848.—Whole	number,		$205{,}746$
$1849. {\color{red}} Whole$	number,		226,616

Total number of passengers transported in 1849, through and way, 349,549; equivalent to 19,074,022 passengers transported one mile. The total number of miles run by engines was as follows:

Passenger trains,			180,410	
Freight do.			71,300	
Gravel do.			19,299	
				271,009
Horse power,			13,010	
Steamboat Susqueha	nna,		3,493	
				16,503
Total of m	iles r	ıın.		287 512

It was stated in the last Annual Report, that during the year 1848, the capital stock of the Company had been increased 350,000 dollars by the creation of 7,000 shares at par. Upon each new share twenty dollars, or forty per cent., was paid in January last; of the residue, an assessment of thirty per cent, was called for on the first of April following, but by a subsequent order of the Board the call was postponed until the first of October, while for the third and last assessment of thirty per cent. payment was also postponed six months, say to first of April, 1850. When this final instalment shall have been paid, certificates of stock to the amount of 350,000 dollars will be issued to the parties entitled to receive them.

The subscribers for new shares made it a condition at the time of taking the stock that the residue of net earnings of the Company, accruing from first of October, 1848, after paying current expenses, repairs, interest on loans, and a stated sum for new work, should be divided among the shareholders, and not, as in former years, be all expended in construction. In accordance with this understanding, in June last, the Board ordered the surplus earnings to be set aside, and subsequently further ordered a dividend of profits for the year ending 30th September, 1849, to be declared. This dividend amounted to three per cent. upon the outstanding capital of 3,850,000 dollars, and left a sum of \$17,762 on October 1st, applicable to future dividends.

During the past season, a passenger house has been built at the

President street depot, in Baltimore, a measure which had been contemplated for several years. The Company, as is known to the Stockholders, has hitherto had no passenger house of its own in Baltimore, but has rented a portion of the Pratt street depot of the Baltimore and Ohio Rail-road, and has paid also for the use of that part of the track of that Company which lies between President street and the Pratt street depot. A desire to dispense with the use of horse power in Baltimore, combined with a wish to possess a station house at the terminus of the Company's Road in President street, (a point to which, under an ordinance of the City, the Company is permitted to run its engines,) induced the Board to authorize the necessary steps to be taken to erect the building in question; and in pursuance of this authority, a substantial brick structure has been erected, 236 feet long, and 66 feet wide, with sufficient room at the western end of the same, for the necessary offices, &c.

The estimated cost of this building, exclusive of the fitting up of the rooms for offices, will not, according to the present estimate of the Engineer and General Superintendent, exceed thirteen thousand dollars.

Upon the same space of ground (the property of the City of Baltimore, but under lease to the Company for a period of twenty years from 1848), is situated a freight house, shop for building and repairing ears, blacksmith shop, &c. The advantage and convenience of combining, as far as practicable, the business of the Company at one spot, are sufficiently obvious; and these, taken in connexion with reasons first stated, will show the change of depot in Baltimore to be really necessary. Other reasons in favor of the change, not less forcible, might be adduced, but they are sufficiently clear to render an enumeration of them unnecessary.

Impelled by considerations of the same nature as those which induced the change of depot to be authorized in Baltimore, the Board has sanctioned measures for a change of a similar kind in Philadelphia.

The Company has no building of any description, either for passengers or freight, at its terminus in Philadelphia, viz: at the junction of its road with the Southwark Railroad, corner of Broad and Prime streets. The change in Philadelphia will be more advantageous to the Company than it is in Baltimore, even. The expense

and delay produced by the necessity of using horse power, are both much greater here than there.

A reference to the accounts for the years 1848 and 1849, will show that the expense of horse power, rents, use of track, &c., &c., in Baltimore and Philadelphia, was, for the two years, \$47,426.06, equivalent each year, at six per cent., to the interest upon a capital of \$395,217.16, and this is exclusive of the great injury to the cars, arising from the very rough condition of the track at all times in the streets in Philadelphia and Baltimore.

A purchase has recently been made, upon very favourable terms, of the greater portion of the two squares of ground lying between Broad street and Schuylkill Seventh, and between Prime and Tidmarsh or Carpenter streets. That is to say, the entire content of the two squares being about 290,000 square feet; the quantity embraced in the purchase is about 230,000 square feet, the whole of it having a front on Broad or on Prime street.

The Company own ground in very desirable situations in both cities, which, when sold, it is believed will produce sufficient to cover the new purchase in Philadelphia, and the cost of the proposed buildings in both cities. It may not be expedient to force a sale of this property of the Company at this time, and the only object in thus stating the matter is to make the fact known to the proprietors, that it will not be necessary to create new capital to enable the Directors to provide suitable land and buildings for stations both in Philadelphia and Baltimore, to meet the wants of the Company in these respects.

Since the date of the last Annual Report, the Board has lost one of its most efficient and useful members, Edmund Dwight, Esq. He died in April last, at his residence in Boston, after a short illness. By a resolution of the Board, the sympathies of the members were tendered to the family of the deceased.

The vacancy thus caused in the Board was supplied by the election of Mr. John C. Lee, on the 12th of July last.

Within the past season, an arrangement has been made between this Company and other rail-road companies, for a through ticket at a reduced price, from New York to Charleston; also for a through emigrant ticket from New York to Pittsburgh; and within a short time, a contract has been concluded with the Post Office Department for the conveyance of a night mail from Philadelphia to Baltimore through the winter season. Heretofore, the great mail from New York, south, arriving in Philadelphia at nine o'eloek, P. M., has lain over until the following morning, four months in the year, say from the 1st of December to the 1st of April.

It has been shown in a preceding portion of this report, that the cost of horse power, rent of tracks and of depot in Philadelphia and Baltimore, has amounted to \$23,713.00 per annum for each of the years of 1848 and 1849. To save a large proportion of this outlay is of course the object which the Directors had in view in sanctioning the proposed change in the depot arrangements in both eities. the details of the horse power expenses, as the gross amount is here stated, it will only be necessary to add a list (D) of all the persons employed by the Cempany, the nature of their duties, and the compensation paid, to enable the Stockholders to judge, by a comparison with other roads, whether their own is worked more expensively per mile in proportion to its business, than those with which the comparisons may be made. In doing this, it should not be forgotten that upon this line there is an unusual number of bridges, an expensive ferry, and, in consequence of the want of a bridge at the Susquehanna, that the two portions of the Road, separated by the river, must be worked independently of each other, consequently at an increased cost, as compared with other roads more favourably situated. withstanding these disadvantages, the Directors believe that in this respect the Philadelphia, Wilmington and Baltimore Rail-road will not suffer by such comparison.

The Treasurer's Statement of the condition of the Company's affairs on the 1st of January, will be found in the appendix, marked A.

The Report of the Engineer and General Superintendent contains a variety of useful information in reference to the Road, and a number of suggestions worthy of consideration. Appended to the report of that officer will be found, among the tables, one exhibiting the expenses in detail of working the Road for the year 1849, marked B. A table, also, exhibiting the details of the construction account for 1849, marked C. Table D. contains the official organization of the Road on the 31st of December, 1849.

By order of the Directors.

W. H. SWIFT, President.

# Statement of the Philadelphia, Wilmington and

Cost of Rail-road, and all appurtenances, - Cost of Stock owned by the Company,	\$4,944,493 16 861,325 00	\$5,805,818 <b>1</b> 6
Real Estate (including depot in Market street, Philadelphia, and lots on Camden street, Baltimore), not connected with the rail-road,		
and may be sold,  #ssets, as follow:—  Certificates of loan due 1860, \$41,177 00		185,718 53
Interest due 1st January, 1,285 88	42,462 88	
Flat bar rail, for sale,  Materials on hand, for use,  Due from sundries,	9,823 00 16,394 61 716 26	
In hands of agents, Due from Post Office Department, Cash,	4,028 14 8,566 66 98,944 53	
·	180,936 08	•
Due from subscribers to new stock, for final instalment, payable 1st April, 1850, \$90,690 00		
Interest (to 1st Oct. 1849), - 4,080 92	94,770 92	975 707 00
	\ <u></u>	275,707 00
·		

Capital Stock, per last report, shares - 83,000	\$4,150,000 00	
Deduct collateral stock held by the Company, 13,000	650,000 00	
Authorized January, 1849, - 70,000 - 7,000	3,500,000 00 350,000 00	
Mortgage Loan, at 6 per cent., convertible, due July, 1, 1860,	3,850,000 00 2,161,776 05	
Liabilities, as follow:—  Bonds and mortgages on real estate, \$26,600 00 Interest to date, 348 00		\$6,011,776 05
New Castle and Frenchtown Turn- pike and Rail-road Co. for gua- rantce, payable 1st July, 1853, Balance of current account, 6,675 87	26,948 00	
Due for real estate purchased in 1837, and to be paid when court appoints guardians, - 6,250 00 Interest, 4,687 50	78,175 87	
Due for sundry balances of account,  " State of Delaware semi annual tax to date, " for dividends unclaimed, — 932 40 Interest unclaimed, \$ 1,534 31	10,937 50 7,941 53 500 00	
Do. due Jan. 1, 1850, 64,853 28 66,387 59	67,319 99	191,822 89
REVENUE, surplus Oct. 1 to Dec. 31, 1848, - REVENUE, Jan. 1 to Dec. 31, 1849, of main line, \$481,613 58 Less expenses, - \$229,165 86 Interest, 124,010 33	24,291 75	101,044
\$353,176 19 Revenue of lower line, Jan. 1 to Dec. 31, 1849, 146,291 30 Less expenses, interest and taxes, 118,773 69		
Joint totals, - \$471,049 88 \$627,904 88 Joint surplus for the year 1849,	155,955 00	
Less dividend 3 per cent. for 12 months,	180,246 75	
paid October 1, 1849, and tax,	116,602 00	63,644 75
		\$6,267,243 69

E. E. January 8, 1850.

A CAMPBELL, Treasurer.

#### REPORT OF SUPERINTENDENT.

Superintendent's Office, Wilmington, Jan. 7, 1850.

W. H. SWIFT, Esq., President.

DEAR SIR:—I herewith present results connected with the operations of this Road for the year 1849.

The details of the different branches of the service are given under appropriate heads, and the expenditures incurred for each will be, found in Table B. made up in the usual form of this Road.

There is also a classification (table E) of the heads of expenditure, &c., as far as could be conveniently followed under the form preseribed by the Legislature of Massachusetts, for the purpose of insuring uniformity in the reports which each rail-road company of that State is required by law to make to the Legislature annually.

The adoption by all rail-road companies of one uniform mode of presenting facts connected with the construction of each road, its principal characteristics, and the arrangement of accounts exhibiting annual expenses, is much to be desired.

The same skeleton form, if adopted by all companies, would present a simple and easy mean of comparison, interesting and important to the stockholders of each, who could at once see in what respects the character, cost and expenses of their own road differed from those of others; and not less useful to the managers of all, as the readiest mode of detecting mismanagement, suggesting changes and improvements, and stimulating to wholesome competition.

The form prescribed in Massachusetts is eonvenient and suitable in many respects, though not perhaps the best; and its adoption by a few roads in other States would soon lead to the general use of one form throughout the country.

Table C. exhibits the additional cost to Road account, incurred for the completion of new T rail, for the change at Principio, and for the increase or enhanced value to passenger and freight ears, engines, tenders, depot improvements, sidelings, &c., absolutely required for greater efficiency of the service in all its departments. It will be perceived with satisfaction that the expenses for construction are rapidly diminishing, in accordance with assurances from the undersigned.

The expenditures, under head of new T rail, in Table C., do not all belong to the *superstructure* of track, but embrace the cost of sundry changes nearly connected with the track, begun at the time the new rail was being laid, and carried on simultaneously with it; such as changes of grades in cuts; raising and widening embankments; additional masonry; substituting a permanent bank of earth for wooden trestle work over marshes; and raising road-bed where it had been overflowed in high tides.

A part of the above enumerated improvements were charged to capital, being the enhanced value imparted to the Road by a permanent mode of construction substituted for a perishable one.

All expenditures under head of T rail will cease from this time, (with exception of that for finishing embankment at Ridley Creek, trestle, now in progress,) and no account for extraordinary expenses, discontinued since 1848, will be again opened.

A separation of extraordinary expenses, such as rebuilding bridges, cars, engines, relaying track on ballast, depot improvements, &c., from those pertaining strictly to ordinary working expenses, was made in some reports of former years, simply to show more clearly that the process of renovation, too long neglected under a former management, had been commenced in a thorough manner, and would, until completed, be a heavy charge against the revenue of the Road. These objects having been accomplished, the revenue need not hereafter be chargeable with any expenses but such as belong to "operating" other roads in ordinary good condition of track and machinery.

I speak of the Road as it is, and do not of course refer to any new improvements or changes of construction, which at any future time it may be thought advisable to make in depots, heavier rails, grades, &c. &c.

In treating upon the subject of repairs and renovatious, much may be said in favour of a "renewal fund," or one to meet general deterioration. It is well known that all roads in this country have once, at least, had to encounter heavy expenses for renewals, accumulating upon them unexpectedly. If these renewals are to be postponed as before, and crowded into one or two years, a separate fund set apart to meet them would be necessary and proper; but after all, a "fund for renewals" is but another name for one for repairs, or, strictly speaking, for the maintenance of way, machinery, &c., as at first constructed and put in use; and although it conveys to the proprietors of roads a distinct idea of the recurrence of periodical outlays for renovation, and the wisdom of providing a fund in reserve to meet them, if allowed to accumulate all together, yet I venture the opinion that no road under good management will be caught a second time by the necessity of making heavy outlays for renewals in any one or two years. All roads in the country, without exception I believe, have been subjected to a sudden and heavy demand upon revenue, for renovation of track, bridges, cars, engines, &c., from the sixth to the eighth year after the first construction; a demand which bore hard upon the value of the stocks of all, and prostrated for the time a great many. The difficulty was in many cases enhanced, as in the case of our own Road, by both the necessity and policy of making, at a heavy expense, new improvements of various kinds not originally provided, for the sake of obtaining accommodations absolutely requisite for the business of the Road; the payments for which improvements fell due during the period of general and hasty renewals. The experience now gained by all roads, in these particulars, will hereafter secure them against a recurrence of like embarrassments.

The reasons why heavy renewals on all roads have been thrown into short periods, and consequent distrust of the value of their stocks inspired, are obvious.

The original proprietors, managers and engineers of nearly every road in the country, were under the impression that the timber composing the track, bridges, cars, &c., would be exempt from decay much longer than experience has proved. The delusion, too, was common, that a road being finished, and its machinery set in motion, it would somehow or another like all new things, take care of itself, or need but little attention.

Hence, that immediate provision, which experience has shown should be made for maintaining constantly in adjustment the whole machinery of a road as soon as set in motion, was omitted; and at the end of five, six, or seven years, companies were surprised, against previous confidence or conviction, to find every thing going wrong; that a rail-road was but a perishable machine, and in the nature of things would get out of adjustment, and require attention and repairs. No superintendent of a road, who has experienced the difficulty, labour, and painful anxiety of such a condition of things, and the heavy responsibility which it imposes, can ever allow it to recur again. He will adopt and practice the maxim, that unless he aims to make the road better each year, it will soon grow worse. He will provide for gradual "wear and tear" and decay, as it arises in any department, and thus equalize the expenditures from year to year, as much as in the nature of things can be done. Near approximation to this equality of expenses is perhaps the best proof of good management.

It is evident that outlays for new improvements, (for it has been truly said, "a road should never be finished,") will vary expenses from year to year. But such are properly chargeable to capital, and do not effect the equality of ordinary expenses, unless the policy should be adopted, and the revenues of the Road permit it, to make all improvements out of revenue. It is by no means certain that this would not be the wiser course, and that the road which should steadily refuse to pay over six per cent., expending the balance of revenue in new improvements, would not in the end become the most perfect, command the most confidence, and as a matter of course offer the most secure investment. Such a determination, and the refusal to increase capital, would doubtless in many cases prevent a road from making such provisions for public accommodation and improvement in its business as might be immediately wanted, and which could soonest be provided from new capital or loans; but, on the other hand, it would conduce, more than all other motives and influences, to strict economy in management, since all new improvements could be made only where the net revenues, after expenses and dividends, should be sufficient to meet their cost. It will not now be disputed that many roads would have been at this time in a healthier condition, had lower dividends been made from the first.

It may be remarked that the condition of this Road, as to deterioration, was as bad if not worse, a few years ago, than any in the country. The depression of its affairs was further increased by the necessity of improving its character, and making improvements as

well as heavy renewals out of revenue, which should originally have been made out of capital, during its construction. All this, for the most part, has happily passed. It will be the effort of the undersigned, as long as he may have it in charge, and should always be that of the Company, to make all renewals as soon as defects occur, instead of postponing them and permitting an accumulation, which must fall the heavier when it comes.

Parts of the track, some of the engines, cars, and bridges, may be renewed each year, so as to equalize as much as possible, annual ordinary expenses.

The expenses for 1849 (\$229,165.86), though larger by statement than those of the previous year (\$219,817.10), were in fact not so much, as will thus appear. A system of cash, or monthly payments, has been sanctioned for obvious reasons, in consequence of which, bills for purchases and work done during the last six months of the year, (heretofore paid in January and February following,) have this year been almost entirely paid before its expiration. The payments thus made, heretofore postponed, amount to over \$12,000.

A further increase of the expenses of 1849, which could not be estimated for, arose from the ice blockade in the Susquehanna river.

The whole expense of working the Road in 1849, \$229,165.86, compared with its gross revenue, \$481,613.58, is  $47\frac{5}{10}$  per centum. Deducting horse power as an expense not common to other roads, but including ferry expenses, the ratio of working expenses to revenue is  $43\frac{6}{10}$ . This is less than the average of the principal New England roads  $(47\frac{6}{10})$ . The year 1848 was yet more favorable for this Road.

The time of making trips between cities ( $5\frac{1}{2}$  hours) has been continued.

Hauling of cars by horses occupies	55 m	inutes.
Stops (11) at stations, other than for wood, at $2\frac{3}{4}$ , .	$30\frac{1}{4}$	66
Passing Wilmington (speed limited by ordinance),	5	6.6
Crossing Susquehanna river,	30	66

(Two hours) 120 minutes.

This deducted from  $5\frac{1}{2}$  hours, leaves  $3\frac{1}{2}$  hours for running 92 miles with engines, or at the rate of  $26\frac{3}{10}$  miles per hour, inclusive of three stops for wood and water only.

When horse power in cities is abandoned, and trains started from

new depots, the time of trips will not only be much lessened, but the inconsistency of trains drawn by horses on a railroad, so justly annoying to passengers, removed.

With far greater speed of engines than is permitted on any road, we could not compensate for loss of time by horse power and steam ferry at the Susquehanna, so as to run the Road from city to eity as soon as trips are made on other roads of equal length. For this reason, it cannot be expected that the Company should be subjected to the wasteful expenditure of maintaining higher engine speed than on other roads, without any corresponding benefit to themselves or the public.

Gray's Ferry draw, obstructions on city tracks, (used in common by our cars and eoal ears,) and high winds, high tides, or iee in the Susquehanna river, either singly or combined, often effect the arrivals of trains in cities beyond the power of man to control. The degree of punctuality attained should be, under the circumstanees, more a matter of surprise than the occasional want of it.

The cost of horse power, rent of tracks in cities, and damages to ears, amount to the following annually:

Horse hire, .		٠						\$20,354	60
Rent of city tracks	, &c	3., .	٥			•		3,770	41
Estimated damages	to	cars	passing	short	e	eurves	and		
over rough track	s,		•		٠		•	4,000	00

\$28,125 01

Or about  $\frac{3}{4}$  per cent. on the capital of the Company. The largest part of this sum will be saved by abandoning horse power.

Tracks.—The balance of new T rail on hand has been laid down; gravel ballast put under portions of track not before supplied with it; two miles of superstructure relaid with new materials over Shelpot Marsh, near Wilmington; and several miles laid in a similar manner between Wilmington and the Susquehanna river.

Two miles of the rails through Iron Hill, laid as an experiment in 1844, on continuous bearing of Carolina pine strings, five by seven inches, with a sub-sill below, on which notched cross-ties were laid, was taken up last year, the string pieces having become totally decayed in five years. Three miles of track were laid in this manner, part of a section of nine miles. For three years past, it has been found to require about the same labour to adjust and repair the three

miles of continuous bearing, as the six miles of the track laid at the same time with cross-ties and no sub-sill. In fact, during the last year nearly all the labour of the six men on the section was required to keep the track safe, until at length a special force was sent to relay the worst part with cross-ties alone. It would thus appear from this experiment that it requires one man to each mile for repairs and renewals of track with continuous bearing, after the second or third year. The portions of track with cross-ties laid on ballast, required one man to  $1\frac{1}{2}$  miles, or four men to six miles.

The additional cost, per annum, of labour and timber on a track with continuous bearing, over one laid with cross-ties, not estimating a sub-sill to either plan of superstructure, will be as follows:

		, .					
Labour per annum per mile,					. \$	88	45
30,000 feet Carolina strings, at 22	,				\$660		
Less 800 ties, not required, at 20,	<b>,</b>		•	٠	160		
					\$500		
Say, renewable in track with cont	inuor	ıs be	arings	. eve	-		
				,	- ,		

\$188 45

It requires a much larger quantity of ballast to spread on road-bed and fill up track laid on continuous bearing, than a simple cross-tie track. The latter has assuredly a decided advantage in facility of draining, and in safety; because when decay begins, it is more easily detected and soonest removed.

19,226 new cross-ties have been inserted in the superstructure of Road, distributed as follows:

Koaa, ar	striout	ed a	s ione	ws:						
New T	ail,							•	٠	4319
Relaying	track	witl	h cont	inuou	ıs bear	ring,	•	•	•	3100
Renewal	s of c	ross	tie tr	ack,			•	•	•	6210
Do.	of c	ontin	uous	beari	ng,	•		•	•	5597

253,492 feet of six by six Carolina string piece have been inserted on thirty-four miles of track, with continuous bearing, west of the Susquehanna river, at a cost of \$4,573.30.

42,633 lbs. of spikes have been used on entire track, costing \$1,811.90, and distributed as follows:

West of Suse	quehan	na,	ordina	ry rep	airs,	21,709,	at $4\frac{1}{4}$ cts.	\$922	63
East of	do.			do.		13,505,	77	573	96
New T rail,						4,319,	,,	183	56
Relaying at I	ron Hi	11.				3.100.	••	131	75

It will be perce	ived fro	om tl	ie pre	ceding	, that	the	cost,	per i	nile	, of
repairs and renew	als, of	the v	whole	Road	and s	ideli	ngs, is	s \$:	359	21
Of Road, without	sidelin	gs,			,	•			388	37
Cost per mile o	f repai	rs of	track	with	cross	ties,	was:			
For cross-ties, 119	9 at 20	cts.		•		•	\$23	80		
" spikes, .				•	•		9	73		
" labour, .	•						223	72		
								\$	257	25
Cost per mile o	f repai	rs of	track	laid o	n con	tinu	ous be	aring	ŗ, w	as:
Carolina timber,						•	\$126	80		
Cross-ties, 155 at	20 cts.					٠	31	00		
Spikes,	٠			•			25	60		

Independent of the greater cost of repairs on the track west of the Susquehanna, and the defective character of the rail as to form and strength, there is yet a still greater objection to it, arising from the impossibility of detecting, at once, decay in the timber, and the risk of running off the track in consequence. I deem these considerations of so much force as to render it almost imperative upon the Company to replace it with a heavier rail, laid on a different plan; and I recommend that ten miles of it should be done each year, the cost of which will be from \$33,000 to \$40,000, according to the weight of rail used—deducting value of old rail at  $1\frac{1}{2}$  cents per pound.

301 00

-\$484 40

Labour,

The weights and forms of rails on the Road are as follows:

Philadelphia to Gray's Ferry (2 miles) Bridge rail, 40 lbs. per yard.

Gray's Ferry to Wilmington (25 ,, ) T rail, 55 to 62 ,, ,,

Wilmington to Susquehanna (34 ,, ) Bridge rail, 40 ,, ,,

Havre de Grace to Baltimore, (36 ,, ) Square bar,

laid on continuous bearing of wood, . . . 40 ,, ,,

As this Road is laid with four kinds of rails—T rail, 62 pounds per yard; T rail, 56 pounds per yard;  $\Omega$  rail, 40 pounds per yard; and square bar, 40 pounds per yard—it may be useful to state the relative durability of each.

Part of the 62 lbs. rail has been in use four years, and no rail of this has been replaced for defect. The 55 lbs. rail, laid down when the Road was constructed in 1838, has stood wear well, requiring but few bars to be removed. The square bar rail has not worn so well as the preceding, though protected by a continuous bearing.

The  $\Omega$  rail has exhibited more defects, and more rails have been removed in proportion to its length of track, than all the others put together; it is stamped E. V. in 1836, the best manufacturer's mill in Wales.

My own observation leads me to the conclusion that the durability of rails depends much less upon their form than upon the fidelity of manufacture.

The T form having most strength with equal weight, as may easily be demonstrated, should wear the longest; but unless equally well manufactured, will not do so.

ROAD-Bed.—The character of the road-bed is as follows:
Philadelphia to Wilmington, . . . graded to a width of 24 feet.
Wilmington to Susquehanna, . . , , , 40 ,,
Susquehanna to Baltimore, . . , , , , 16 to 18 ,,

The road-bed throughout has attained great permanency, and is thoroughy drained by deep ditching. The bridges and small culverts are all in the best repair. 1,210 perches of masonry, for new work or repairs, have been erected during the past year. From Philadelphia to Wilmington, the bridges for the road-bed are constructed for the most part of wood. From Wilmington to the Susquehanna river, they are of permanent stone and brick arches, with one exception; and from the Susquehanna river to Baltimore, the bridges and culverts are of stone, excepting the pile bridges on the estuaries of Gunpowder, Bush and Back rivers.

From Philadelphia to Wilmington, the ascents or descents do not exceed 15 feet to the mile, with one exception.

From Wilmington to the Susquehanna, the grades do not exceed 39 feet; and from the Susquehanna to Baltimore, 20 feet is the greatest inclination. The curvation of the Road is everywhere moderate.

Bridges.—Since the last Annual Report, a new iron bridge has been erected near Gray's Ferry, to replace one of wood. A new roof over bridge at White Clay Creek, of iron, and a new roof over bridge at Marcus Hook, have been put on. These bridges had never been previously covered. Brandywine bridge has been re-covered with iron, the tin roof having been blown off last spring.

Several road bridges have been rebuilt in a much more substantial manner than as originally constructed, and one erected at a new point.

All the truss bridges on the Road are now covered.

The pile bridges over Gunpowder and Bush rivers have been entirely renewed, and are as safe as any structure of wood can be.

The new work at Principio is in satisfactory progress. The masonry, as stated last year, is all complete; timber is on the ground, ready for the superstructure; and the base of the deepest embankment laid, in addition to what embankment laid been done before.

Engines and Tenders.—One new engine was purchased since date of last Annual Report, of the New Castle Manufacturing Company, for \$6,500—tender not included. Of the four then in shops rebuilding, two have been put in use, and one will be finished early this spring. The fourth, together with another rebuilding, will be completed as soon as the force usually employed for repairs can do so, working on them from time to time, when not otherwise employed. Two new tenders have been built and placed upon the Road.

There have been no less than six accidents, by which engines have been thrown off the track, during the past year—five by cattle, &c., and one by obstructions placed upon the track. These casualties have added, as near as can be stated, about \$4,000 to repairs of engines.

The engines at first put in use on this Road, as on most others, were, after a few years, found too light to draw the trains at a desirable speed. To keep up with the demands of the service, some new engines were purchased, and many of the old rebuilt (as has been the practice elsewhere) by spare labour, when the regularforce of mechanics, which should always be kept on hand for repairs, was not employed.

When an engine of a light class is run down, it would show a great want of judgment to rebuild it upon the same model, unless for some branches of the service a light engine would answer equally well with a large one; as little judgment would be shown by a total change of model, in which none of the old parts could be used, and which would require new patterns for work, and new arrangements of machinery, not familiar and easy to the principal machinist or the hands, and on which they would work to a great disadvantage and consequent loss to the Company.

Cases of the kind, as they occur, must be determined by the exercise of such sound practical sense as may be at hand; not controlled on the one hand by a false economy, nor permitting, on the other, a

full license to visionary experiment. The rule should be to *improve* within moderate bounds. Work thus done in shops of many companies has been productive of great advantage.

In rebuilding our engines, they have always been enlarged, using again all the rods, shafts, pumps, brasses, tubes, parts of boiler, &c. None have been built on any new plan, not well understood.

The two three-cylinder engines are not exceptions to this, as the outside cylinders are in arrangement and position precisely like other engines; the middle cylinder being simply an addition acting as auxiliary to the others, giving more power and vastly more steadiness and truth of motion—advantages of great importance in a narrow gauge road.

The number, description and condition of engines are given in a table.

Probably few roads have so great a proportion of their force of engines in running order as this. The object and effort has been to have one-half as many spare engines in order, fit for use, as are required for the daily service of the Road. Experience will sanction this rule everywhere. The break in this Road at the Susquehanna river, requires it to be worked, so far as engines and cars are concerned, as two roads; and hence a larger number of both are owned by the Company than would otherwise be requisite.

Cars.—Three passenger cars, three second-class cars, three rack cars, two baggage cars, three dumping cars, two lumber cars, one mail car, two road cars, and seven snow ploughs, have been built new since last Report, and two old cars rebuilt. Some of the above cover deterioration of cars, and some constitute an addition to those before owned. One large new night car and one second-class car are nearly finished. The usual exemption from breaking of axles has attended the running of cars the past year.

Depots and Buildings.—A house for the Superintendent and Bridge-keeper has been erected at Gray's Ferry, nearly finished. The freight-house at Marcus Hook has been enlarged to double the former size, to accommodate freight; and important improvements have been made at many other points.

The cost of new engine house at Wilmington, built entirely of fire-proof materials, iron roof and tin covering, has been \$12,804.18. It is 126 feet greatest diameter, and in cost, convenience, ventilation, and appearance, will not suffer in comparison with any other.

The new passenger house in Baltimore, begun in May last, is finished, with exception of interior arrangement of rooms. The building stands at the corner of President street and Canton avenue, and is 236 feet in length by 66 feet wide. Twenty-eight feet of the west end is two stories high, intended for offices, &c.; the whole covered with a substantial roof of iron, well coated with mineral (Ohio) paint. The building permits a commodious arrangement of tracks at the entrance, interior platforms, &c., and will afford sufficient accommodations for passengers for some years. The building may be regarded as fire-proof, and has cost thus far \$8,812.73.

Miles run by	y engines-	-Passenger	trains,		180,410	
,,	,,,	Freight	,,	•	71,300	
77	,,	$\overline{\text{Gravel}}$	,,		19,299	
						271,009
		Horse Pow	er, .			13,010
		Steamboat	Susque	ehanna	, , ,	3,493
					5	287,512
Average cos	t of all tra	ins carried;	per m	ile run	,	.898
,,		99	,,	H. po	wer excl'd,	.760
99		,,	,,	by eng	gines,	.723
"	Transp	ortation exp	enses,	do.	.2951	
99	Road r	epairs,		do.	.136	
99	Bridge	do.		do.	.0268	
99	Depots	, tools, &c.		do.	.0217	
99	Engine	repairs,		do.	.0937	
,,	Cars	do.		do.	.0550	
,,	Genera	al charges,		do.	.0947	
		Total	l, as ab	ove,	.723	
Average cos	t of horse	power, per	mile ru	ın, by	trains, .	1.56
,,	Steamboa	it Susquehan	ma, do	•	do	2.86
,,,	Passenge	r per mile ca	arried,	by hor	se power,	4.5 cts.
,,	,,	,,		ste	am ferry,	6.5 "

Respectfully submitted,

J. R. TRIMBLE, Engineer and Gen. Superintendent.

(B.)

Expenses of the Philadelphia, Wilmington and Baltimore Railroad Company, 1849.

, , ,	Jonipang, 2		
Transportation— Rents of depots and tracks—Balti-			
more, \$1500; Philad., 2270.41, -Rents of offices, &c.,	\$ 3,770 41 1,663 33	\$ 5,433 74	
Purchase of fuel—wood, 25,249.56; coal, \$591.34,	25,840 90	ф 0,400 74	
Sawing wood and pumping water,	4,147 42		
Less wood on hand, Dec. 31st, -	\$29,988 32 7,567 50	22,420 82	
Oil and tallow, waste and packing, ,, lighting depots,	3,196 04 624 78		
Pay of agents, clerks and labourers,		3,820 82	
at stations,	17,726 88 $10,008$ 85 $ $		
Pay of conductors and train hands, ,, enginemen and firemen, - Pay of bridge keepers, \$3250.12;	9,265 85		
watchmen at stations, \$1519,	4,799 12	41,800 70	
Gratuities and damages, lee and snow, \$139.43; miscel-	4,156 67	,	
laneous, \$305.98,	945 41 1,414 54		
Repairs of road and fences,	36,991 27	6,516 62	
Repairs of bridges, masonry, pile and truss, including renewals with wood and iron,	7,264 66		
Repairs of depots, shops, water stations, \$4804.68; tools, new, \$700.64; renewals, \$389.64,	5,894 96		
Repairs of engines. \$21.840.77	25,416 61		
Rebuilding do 3,575.84 Repairs of cars, - 10,694.03 Renewals do 4,200.00	14,894 03		
,		90,461 53	\$170,454 23
General charges— Salaries, transfer agencies, office			
and other miscellaneous ex-	16,283 63		
penses,	5,239 37		
tising,	2,051 48 1,799 32	1	
Law expenses, Expense of real estate,	305 22	25,679 02	0.5 680 00
Horse power in Philadelphia and B	Saltimore, -		25,679 02 20,354 60
Steamboat Susquehanna—		3,752 91	
Pay of officers and crew and working Repairs and insurance, Fuel,	· · ·	3,063 46 3,193 <b>7</b> 5	
Miscellaneous expenses during bloc (Jan. 29th to March 12th), other		0.22* 00	
charged as repairs, &c		2,667 89	12,678 01
			\$229,165 86
Ianuary 9, 1950		1 R TR	IMBLE

January 8, 1850.

J. R. TRIMBLE, Engineer and Gen. Superintendent.

# ( C. )

Construction	Account, 1849	, Philadelphia,	Wilmington a	nd Balti-
	more R	ail-road Compe	any.	

Land Damages—For widening road-b Settlement of claims, incurred duri		\$ 105	25
ginal construction of Road and brid	_	2,115	05
Real estate purchased in 1837,		6,250	
parental in 1007,			\$ 8,470 30
Road-New track, labour and mater	ials for		<b>V</b> 0,1.0 00
superstructure, embankments and ne	w turn-		
outs,			7,324 06
Bridges—Enhanced value by rebuildi			- 7.
for new Road bridges,	_	3,711	46
New location at Principio, ma		-,	
1,640.68; embankment, 2,063.40;			
structure, 1,696.83,	-	5,400	91
211401410, 2,000,000,			9,112 37
Depots and water stations—			
-		4 673	48
Engine house at Wilmington,		274	
New passenger depot, Baltimore,			
New passenger depot, Dammore,		0,012	
Engines—1 purchased, "Minerva,"	without		13,700 30
•			
tender; 2 rebuilt with cut-offs, fin			
2 in hand rebuilding; 2 new tende		1000	0.0
cut-off fixtures added to 3 engines,		16,867	90
Less charged to repairs, to cover de	-		
tion,		$3,\!255$	
~		-	13,612 90
Cars—Additional value by rebuilding	_		
new cars built,		15,910	25
Less charged to repairs, to cover de	eprecia-		
tion,		2,100	00
			13,810 25
Total increase in cost of Roa	d during	1849,	\$66,090 86
		J. R.	TRIMBLE,
*			

January 8th, 1850.

Engineer.

# ( **D**. )

# Official Organization of the Philadelphia, Wilmington and Baltimore Rail-road Company, December 31, 1849.

No.	OFFICERS, AGENTS	S. &c.			Monthly Compensation.
1	President,	-	-	7	o o mpo usacom
1	Secretary and Treasurer,	-	-	ĺ	
1	Clerk Treasurer's office,	-	-	\	\$ 994 17
1	Ass't Clerk do.	-	-	7	φ σσ4 17
1	Engineer and Gen. Superint	endent,	-	1	
1	Clerk for do.	-	-	J	
6	At Sta	tions.			
13	Station agents, including frei		_	_	519 98
4	Clerks at stations, -	-	_	_	233 50
7	Superintendents of shops,	-	_	-	362 97
51	Mechanics, iron and wood,	-	_	_	1,654 40
25	Helpers and apprentices,	-	-	_	306 10
39	Labourers and Watchmen at	t stations,	-	-	1,440 14
1.00					
139	Tra	ins.			
8	Conductors	-	_	_	330 00
13	Brakemen,	-	_	_	335 00
12	Enginemen,	-	_	_	515 00
11	Firemen,		-	-	275 00
44	Th	70 - 1 0 -			
1.0	Repairs of		•		40m 00
$\frac{10}{99}$	Supervisors of Road Repair.  Labourers do.	s, -	-	-	497 00
	Labourers do. Bridge keepers, -	•	-	-	2,069 68 250 00
10	Bridge keepers, -	-	-	-	250 00
119					
	Steam Ferry, Su	squehann	a River.		
1	Captain,	-	-	-	83 33
7	Enginemen, firemen, and cre	ew,	-	-	136 00
8					
	Steam Saw	Mill, Ced	eil.		
4	Enginemen and hands, -	-	-	-	101 87

## Recapitulation.

6	Officers, -	-	-	-	-	994	17
139	Stations, -	-	-	-	-	4,517	09
44	Trains, -	-	-	-	-	1,455	00
119	Road repairs,	-	-	-	-	$2,\!816$	68
8	Steam ferry, Susqu	tehanna,	-	-	-	219	33
4	Steam saw mill, C	ecil,	-	-	-	101	87

320 Aggregate monthly compensation, 10,104–14 Number of persons employed per mile of Road,  $3\frac{2}{10}$ . Cost of the organization per mile per annum, \$1,212.49.

## (E.)

#### DECEMBER 31, 1849.

			,,				
Capital Stock	, outstanding	ŗ, -		-	- :	\$3,850,0	00 00
Capital Stock	, issued sinc	e last I	Report.	-	-	350,0	00 00
Funded debt,	mortgage loa	an at 6	per cent	., due 1	860,	2,161,7	76 05
Floating debt,			-	-	-		None.
Cost of Rail-r	oad, for grad	ation a	nd masoi	nry, bri	dges,		
	ure, includin			•	_		
-	notives and c						
expenses, n	ot separated	, -	-	_	-	4,944,4	93 16
Cost of Real	-						18 53
Expended in		•					
Table (C.)			-	-	-	66,0	90 86
,							
	Char	racteri	stics of .	Road.			
Length of Ro		•	-	-	-	97	miles.
_	gle track,	-	-	-	-	97	,,
	elings,	-	-		-	$7\frac{1}{2}$	,,
Weight of rai	il per yard,	-	-	-	40	to 62	lbs.
Maximum gra				-	39 f	eet— $2\frac{1}{2}$	miles.
Total rise and	_	-		-	-		
Shortest radio	s of curvatu	re and	length,	-	-		
Total curvatu	re of Road,	-	-	-	-		
Total length of	of straight lin	ne in R	load,	-	-	$70\frac{3}{4}$	miles.
,,	Truss brid		-	_	-	3046	feet.
	D:1 <sub>0</sub>					9	miles

# Results of the Year's Work.

Miles run b	y engines v	with passenge	er trains,	-	$180,\!41$	10	
,,	,,	freight	,,	-	71,30	00	
,,	**	other	,,	-	19,29	99	
						_ 271,0	009
77	horse	power, -	-	-	13,01	10	
**	steam	ferry boat,	-	-	3,49	93	
					-	_ 16,5	503
Total numb	ocr ef mile	s run by en	gines, ho	rse po	ower, ar	nd	
steamboa	t, -		-		-	- 287,5	512
Number of	passengers	earried, -	-		-	- 291,1	137
11	,,	,, one	mile, -		-	13,469,9	946
,,	tons of me	erchandise, -	-		-		
**	• •	" one	mile, -		-		
		f noggongor t	rains, inc	luding	14 stor	os,	
Average rat	e or speea c	n passenger i	i aniis, inc				
Average rat	e or speea c	n passenger i	rams, me			es per ho	ur.
			,,	·,,			ur.
Average rat	e or speed c	freight			23 mile	es per ho	ur.
	,,	freight	37	,,	23 mile 10 ,,	es per ho	our.
	,,		37	,,	23 mile 10 ,,	es per ho	our.
"	,, Expen	freight	" Vorking	" the R	23 mile 10 ,, 20ad.	es per ho	our.
,, Repairs of	,, Expen Road or m	freight  ditures for I  aintenance of	" Working way and	,, the R	23 mile 10 ,, 20ad.	es per ho	
Repairs of elusive o	,, Expension Road or many frequency of the contract of the con	freight  ditures for V  aintenance of russ bridges	Working way and	,,  the R l fence wals o	23 mile 10 ,,  Coad. es, ex- f iron,	es per ho	27
Repairs of elusive o	" Expended or make the following of the	freight  ditures for I  aintenance of  russ bridges a  ss and pile, in	Working way and and reneveluding m	" the K l fence vals of assonr	23 mile 10 ,, 20ad. es, ex- f iron, y, &e.	es per ho " \$36,991	27
Repairs of elusive of Repairs of I	Expen Road or ma f wooden to bridges, trus of iron in	freight  ditures for V  aintenance of russ bridges a  ss and pile, increpairs of Re	Working way and and reneveluding m	" the K l fence vals of assonr	23 mile 10 ,, 20ad. es, ex- f iron, y, &e.	es per ho " \$36,991	27 66
Repairs of elusive o Repairs of l Renewals of and draw	Expension of the Expens	freight  ditures for V  aintenance of russ bridges a ss and pile, increpairs of Re	Working Way and and reneveluding mod, wage	" the K l fence vals of assonr	23 mile 10 ,, 20ad. es, ex- f iron, y, &e.	es per ho " \$36,991 7,264	27 66 12
Repairs of elusive of Repairs of land draw Removal of	Expension of the Expension of the Expension of Expension	freight  ditures for V  aintenance of russ bridges a  ss and pile, increpairs of Re  new and sund	Working Way and and reneveluding mod, wage	" the K l fence vals of assonr	23 mile 10 ,, 20ad. es, ex- f iron, y, &e.	\$36,991 7,264 3,280 945	27 66 12 41
Repairs of elusive o Repairs of l Renewals of and draw	Expension of the Expension of the Expension of Expension	freight  ditures for V  aintenance of russ bridges a  ss and pile, increpairs of Re  new and sund	Working Way and and reneveluding mod, wage	" the K l fence vals of assonr	23 mile 10 ,, 20ad. es, ex- f iron, y, &e.	\$36,991 7,264 3,280	27 66 12 41

# Motive Power.

nd new l	.ocomot	ives		
-			\$25,416	61
it cars, a	nd for	new		
-		_	14,894	03
included	in abo	ove).	,	
`		,		
,,	,	,		
of engin	es and	cars,	40,310	64
_		_	20,354	60
	,			_
t of motiv	ve pow	er,	60,665	24
	•			
neous.			•	
-	-	-	25,616	86
- expenses	- , charge	able	25,616	86
- expenses ent,	- , charge -	able	25,616 44,274	
- expenses ent, -	- , charge - -	able -		71
	- , charge - - -	eable	44,274	71 67
	- , charge - - -	- eable - -	44,274 4,156	71 67 37
ent, - -	-	-	44,274 4,156 5,239	71 67 37
	-	-	44,274 4,156 5,239	71 67 37 01
ent, - -	s, inclu	- - ding -	44,274 4,156 5,239 12,678	71 67 37 01
ent, r station rer, Sup	- - s, inclu - erintend	ding -	44,274 4,156 5,239 12,678	71 67 37 01
ent, - - - r station	- - s, inclu - erintend	ding -	44,274 4,156 5,239 12,678	71 67 37 01 96
ent, r station rer, Sup	- - s, inclu - erintend	ding -	44,274 4,156 5,239 12,678 5,894	71 67 37 01 96
	of enging Baltimon	of engines and of Baltimore,	included in above).  of engines and cars, Baltimore,  t of motive power,	\$25,416  at cars, and for new 14,894  fincluded in above).  "  of engines and cars, 40,310  Baltimore, - 20,354  t of motive power, 60,665

( **F.** )

Table showing Character and Length of Bridges, and Length of Sidelings.

	Character of Bridges.	Rail-road Bridge.	Farm Bridges.	Sidelings.
Broad st. and Gray's Ferry,				2,300
Schuylkill (Draw),	Wood,	798		
Gray's Ferry Depot,	Iron,	40		3,020
Carr's Garden,	Wood,		70	, , , , , , ,
Do.	·		55	
Belle Road,	**			505
Lazaretto,				540
Darby River (Draw),	·	422		
Crum Crook	"	360		
Ridley Creek, ,,	"	160		
Chester Creek,	77	163		864
Perkins' Farm,	"	100	35	001
Ashmead's,	77	20	90	
Johnson's,	"	20		
,	77	20	70	
Eyre's, $(2)$ ,	99	149	10	687
Marcus Hook,	,,, T	143		007
Naaman's Creek,	Iron,	130		7/10
Quarryville,	Trestle,	60		712
Mendenhall's,	70'1	20		795
Shelpot,	Pile,	60		7.49
Brandywine (Draw),	Wood,	440		543
Wilmington,			7.00	7,264
Moody's Cut,	,,		106	
Stroud's Cut,	2.9		50	m/O 0
Newport,				720
White Clay Creek,	"	233		
Price's Woods,				1,050
Newark,				513
Iron Hill,	,,,		<b>5</b> 0	
Elkton,				879
Bacon Hill,	22		56	450
North-east,				840
Lonaghan's Cut,		-		550
Principio,	İ	1		380
Cecil Depot,	57		66	3,400
Havre de Grace (2),	,,	1	60	3,445
Hall's ⋈ Roads,				432
Perrymansville,				927
Bush River (Draw),	Pile,	4,000		375
Magnolia,		,		480
Gunpowder (Draw),		5,160		684
13 mile switch,	7,7	0,200		552
11				791
Stemmer's Run,		100		
Back River,	77	900		İ
	"	000	30	
Orange Farm,		117	90	1,446
Canton,	1	114		4,140
Baltimore,	1			1,110

And 15 stone bridges, with 27 arches.

(G.)

Table showing Weights, &c., of Engines and Tenders owned by Company.

NAME OF ENGINE.	Weight of Engine.	Weight on Drivers.	Diameter of Wheels.	Diameter of Cylinders.	Length of Stroke.	Weight of Tendor.		CONDITION.
	Pounds				Inch.			
Baltimore,	38,000		63	13	24	16,000	cut off	In good order.
Boston,	40,600		60	141	20	<b>24</b> ,950		do.
Brandywine,	35,000	· 1	63	$12\frac{1}{2}$	21	14,000		In shop for cut-off.
Brantz,	32,000		50	$10\frac{1}{2}$	18	14,000		In good order.
Canton,	45,000		63	$12\frac{1}{2}$	21	14,000	cut off	do.
Christiana,	49,150	31,420	72	12	26	32,000	cut off	do.
Gunpowder,	28,000	,				,	cut off	do.
Harrison,	42,000	26,100	63	$14\frac{3}{8}$	20	24,550		do.
Hercules,	,	,				_ ′		Rebuilding.
Kentucky,	31,000	18,010	48	105	18	24,550		In shop for repairs.
Lafayette,	, , , , , , , , , , , , , , , , , , ,	,		-		/ /	Old,	
Minerva,	41,950	25,330	66	15	20	24,800	cut off	
Mississippi,		25,050	60	143			cut off	do.
Orion,	40,790			13	20	21,180		do.
Ohio,	· '	,				,		Rebuilding.
President,	44,370	28,200	63	14	21	19,000	cut off	In good order.
Rough & Ready,	36,490		50	12	18	20,000		do.
Schuylkill,		18,740		105		20,650		do.
Susquehanna,	20,000	,	50	103		14,000		Old.
Victory,		22,820		141	20	24,850		In good order.
Washington,		29,000	63	*	+	28,950		Under repairs.
John Bull,	′	/	54	11	18	,,,,,,		do.
Maryland,	20,000		56	$10\frac{1}{2}$				do.

<sup>\*</sup> Inside 15, outside 10½. † Inside, 20, outside 19.

Note.—The above weights were obtained when the engines and tenders were filled with water and wood. The weights of four of them are estimated, but approximate correctness.

#### (題.)

The following is a list of Cars now on the Road, new or in good order. An error in the register of cars has run through several years, though the annual additions have been properly stated. The whole list is now correct.

```
33 Passenger cars, 8 wheel, first class.
                   8
 5
                            second class.
 8 Baggage
                   8
                "
                        ,,
 3 Mail
 3 Express and Mail cars, 8 wheel.
 4 Horse cars, 4 wheel.
46 Freight cars, 8 wheel.
10
                4
       "
30
           (box) cars, 4 wheel.
       ,,
21
                     8
           rack
                 ,,
       ,,
           lumber,,
10
                      4
                           22
30 Platform cars,
                      8
10
                      4
                           "
18 Road
                      4
                           "
 7 Dumping,,
                      4
 9 Manual Labour cars, 4 wheel.
 5 Snow Plough
```

Comparison of the Cost of Construction and Operation of some of the leading Rail-roads of the United States, compiled from their most recently published Annual Reports.

Cost of steamboa: Susquehanna per mile tun.		2.86	
Cost of Horse Power per mile run.		1.56	
Charge per Ton per mile.	3.267 4.644 3.529 4.763 3.025 4.535	3.959 5.154	3.106
Charge per Pas- sengers per mile.	2.000	2.253	3.009
Cost per Ton per mile—cents.	1.192 1.883 1.681 1.179 1.554 1.746	1.539	1.589
Cost per Passen. get per mile- cents.	1.673 1.260 1.354 1.237 1.354 1.445	1.387 1.440 1.190	1.200
Cost per mile	100.57 74.99 81.90 66.10 81.10 72.31	79.49	64.08 63.95
Ratio of Expenses to receipts per cent.	58.3 51.4 53.3 38.0 48.9 50.1	50. 47.5 43.6	51.1
Total expenses, exchasive of In- terest.	\$268,707 152 258 381,918 189,966 652,357 256,535	320,678 229,166	644,634 195,783
Total Receipts, including Mails, Rents, &c.	\$461,339 354,375 716,284 479,158 1,332,068 511,628	642,475	1,241,205
Receipts from Tonnage,	\$260,120 123,112 383,398 101,089 781,030 179,467	304,702	1,198,391
Receipts from Passengees.	\$201,219 231,263 332,886 378,069 551,038 332,161	380,429	351,684 166,484
Cost per mile.	\$73,225 63,813 69,925 53,139 63,462 44,648	61,368	56,405
Cost of Road and Equipment.	\$2,013,687 3,031,107 4,650,393 3,095,394 9,900,154 3,571,832	4,944,493	10,096,571
.eslim ni digas.	271 471 663 381 156 80	69.3	213
NAME OF ROAD.	Boston and Lowell and Branches, Boston and Providence and do. Boston and Worcester and do. Eastern Rail-road, Western Rail-road, Boston and Maine and Branches,	Average of the above, Phila., Wil. and Balt. Rail-road, . Do. excluding horse power, and tracks in cities,	Baltimore and Ohio Rail-road, Georgia Rail-road,

The statements above for the Philadelphia, Wilmington and Baltimore, and Baltimore and Ohio Rail-roads, include the expense of horse power, and the former the Ferry at Susquehanna river.

# OFFICERS, 1850.

President.

WILLIAM H. SWIFT.

Directors.

FOR PENNSYLVANIA.

WHLIAM H. SWIFT, M. BROOKE BUCKLEY, C. H. FISHER, EDWARD C. DALE, JOHN C. LEE,

FOR DELAWARE.

JAMES ROGERS, GEORGE BUSH, WM. R. SELLARS, MERRIT CANBY, EDWARD W. GILPIN.

FOR MARYLAND,

J. I. COHEN, Jr.
THOMAS KELSO,
JOHN C. GROOME,
ROBERT M. MAGRAW,
COLUMBUS O'DONNELL.

Secretary & Treasurer.

ALEXANDER CAMPBELL.





